

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PAUL M. URBANUS and ROBERT J. GOVE

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Appeal No. 1999-0301  
Application No. 08/156,541

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ON BRIEF

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Before URYNOWICZ, BARRETT and RUGGIERO, Administrative Patent Judges.

URYNOWICZ, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the final rejection of claims 15 and 19-25. Claim 1 stands allowed.

The invention pertains to digital pulse-width modulated display systems. Claim 15 is illustrative and reads as follows:

15. A digital display system comprising:

a digital display device for receiving a series of binary image data words and displaying an image representative of said data words, each said image data word comprised of at least two bits, each said bit in said image data words displayed sequentially for a display duration representative of the weight of said bit;

at least one input image modification signal representing a desired image contrast; and

a display system controller, said system controller oppositely altering the display duration of at least two said bits based on said image modification signal.

The references relied upon by the examiner are:

Popowski et al. (Popowski)	4,709,230	Nov. 24, 1987
Kohgami et al. (Kohgami)	5,187,578	Feb. 16, 1993
Yomiya	JP 2-212881	Aug. 24, 1990

Claims 21, 22, 24 and 25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention.

Claims 15 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohgami.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohgami in view of Popowski.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohgami in view of Yomiya.

The respective positions of the examiner and the appellants with regard to the propriety of these rejections are set forth in the final rejection and the examiner's answer (Paper Nos. 18 and 23, respectively) and the appellants' brief and reply brief (Paper Nos. 22 and 26, respectively).

The Rejection of Claims 21, 22, 24 and 25  
Under 35 U.S.C. § 112, Second Paragraph

The inquiry to be made concerning the second paragraph of 35 U.S.C. § 112 is merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularly when read by the artisan in light of the disclosure and the relevant prior art. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). The examiner's position at page 3 of the answer is as follows,

The recitation of "said duration of a first of said at least two bits" and "said duration of a more significant of said at least two bits" in claims 21-22 and 24-25 is unclear since it is unknown that the first bit is [sic] more significant bit or less significant bit and a first bit and a more significant bit is not consistent.

We will not sustain the rejection of these claims. It appears clear to us that the recitations of a "first" bit in claims 21 and 22 and of a "more significant" bit in claims 24

and 25 do not set forth or imply an ordering of the “at least two bits.” Furthermore, it is clear from appellants’ specification what is meant by the language in question. For example, with respect to claims 21 and 24, appellants’ specification shows that a first bit 44 in Figure 3 is decreased in duration to the size of bit 52 in Figure 4, and that a second more significant bit 42 in Figure 3 is increased in duration to the size of bit 50 in Figure 4.

The Rejection under 35 U.S.C. §103(a)  
Claims 15 and 23

After consideration of the positions and arguments presented by both the examiner and the appellants, we have concluded that the rejection should not be sustained.

We agree with appellants that Kohgami does not teach or suggest “oppositely altering the display duration of at least two said bits” as recited in claim 15 or “oppositely adjusting said bit display duration” as recited by claim 23. In the above terms, the bit display durations require the display duration of one bit to be lengthened while the display duration of another bit is shortened. Kohgami’s teaches at column 9, lines 17-63, reordering the order in which the data bits are displayed and splitting longer bits into two segments. However, neither disclosure is a teaching or suggestion of “oppositely altering” or “oppositely adjusting” the bit periods as recited in the above claims.

The disclosure relied on by the examiner at column 8, lines 37-54, does not teach or suggest “oppositely altering” or “oppositely adjusting” bit display durations. Kohgami teaches alternately displaying two different image data bits having different display durations, and this is not the same as altering or adjusting the display duration for a given bit.

### The Rejections of Claims 19 and 20

Whereas these claims depend from claim 15 and we will not sustain the rejection of this claim over Kohgami, we will not sustain the rejection of claim 19 over Kohgami and Popowski or the rejection of claim 20 over Kohgami and Yomiya.

REVERSED

STANLEY M. URYNOWICZ, JR.  
Administrative Patent Judge

LEE E. BARRETT  
Administrative Patent Judge

JOSEPH F. RUGGIERO  
Administrative Patent Judge

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